

What is claimed is:

1. An embedment device for use in a structural panel production line wherein a slurry is transported on a moving carrier relative to a support frame, and chopped fibers are deposited upon the slurry,
5 said device comprising:
 - a first elongate shaft secured to the support frame and having a first plurality of axially spaced disks;
 - a second elongate shaft secured to the support frame and having a second plurality of axially spaced disks;
 - said first shaft being disposed relative to said second shaft so that said disks intermesh with each other.
- 10 2. The device of claim 1 wherein, when viewed from the side, peripheries of said first and second pluralities of disks overlap each other.
- 15 3. The device of claim 1 wherein said shafts are oriented on the frame to be generally transverse to the direction of movement of the slurry along the production line.
- 20 4. The device of claim 3 wherein said shafts are oriented on the frame to be generally parallel to each other.
- 25 5. The device of claim 4 wherein each said shaft includes relatively smaller diameter spacer disks between each adjacent pair of said first and second pluralities of disks, and peripheries of said first and second pluralities of disks are in close proximity to corresponding peripheries of said opposed spacer disks.

6. The device of claim 1 wherein said disks are fixed to said corresponding elongate shafts for common rotation.

5 7. The device of claim 1 wherein said first plurality of disks are disposed relative to the frame to create a first trough pattern in the slurry for embedding the fibers therein, and said second plurality of disks are disposed relative to the frame to create a second trough pattern in the slurry, said second pattern being transversely offset from said first 10 pattern.

8. The device of claim 1 wherein said shafts are configured to rotate in the same direction.

15 9. An embedment device for use in embedding fibers into a settable slurry used in producing a structural board on a board production line including a support frame, said device comprising:

20 a first elongate support shaft secured to the frame and having a first plurality of relatively large diameter disks stacked axially along said shaft in between a first plurality of relatively small diameter disks;

25 a second elongate support shaft secured to the frame and having a second plurality of relatively large diameter disks stacked axially along said shaft in between a first plurality of relatively small diameter disks;

25 said first and second support shafts positioned relative to each other so that said first plurality of relatively large diameter disks are intermeshed with said second plurality of relatively large diameter disks.

10. The device of claim 9 wherein, when viewed from the side, peripheries of said relatively large diameter disks overlap each other.

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11. The device of claim 9 wherein each said large diameter disk and said small diameter disks have a thickness, and said thicknesses of said large diameter disks and said small diameter disks are approximately the same.

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12. The device of claim 9 wherein said shafts are oriented on the frame to be generally transverse to the direction of movement of the slurry along the production line and are generally parallel to each other.

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13. The device of claim 9 wherein said disks are fixed to said corresponding elongate shafts for common rotation.

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14. An embedment device for use in embedding fibers into a settable slurry used in producing a structural board on a board production line including a support frame, said device comprising:

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a first elongate support shaft secured to the frame and having a first plurality of relatively large diameter disks stacked axially along said shaft in between a first plurality of relatively small diameter disks;

a second elongate support shaft secured to the frame and having a second plurality of relatively large diameter disks stacked axially

along said shaft in between a first plurality of relatively small diameter disks;

5 said first and second support shafts positioned relative to each other so that said first plurality of relatively large diameter disks are intermeshed with said second plurality of relatively large diameter disks; and

 said first and second shafts, and said associated disks, rotate in the same direction.

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